1: J Interferon Res. 1989 Apr;9(2):227-37.

Links

Antiviral activity of a novel recombinant human interferon-alpha B/D hybrid.

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The antiviral potential of a novel cross-species active, recombinant human interferon-alpha B/D hybrid (rHuIFN-alpha B/D), was evaluated for its efficiency in cultured human monocytes and in several murine models of viral disease. When examined in 14-day-old human monocyte cultures, rHuIFN-alpha B/D was highly effective in preventing viral replication and cell destruction caused by herpes simplex virus type 1 (HSV-1/VR3). The effect observed with 100 units of this hybrid IFN was as good or higher than that observed with equivalent amounts of rHuIFN-alpha A or IFN-gamma. In addition, a single dose (5 X 10(7) U/kg) of rHuIFN-alpha B/D administered several hours after intranasal infection with HSV-1/VR3 suppressed pulmonary virus replication and prevented death due to interstitial pneumonia. Similarly, mice infected with a more aggressive strain of HSV-1 (McIntyre) were protected when this IFN preparation was administered at the time of virus infection and 1 day later. The anti-retroviral activity of rHuIFN-alpha B/D was examined in two murine leukemia retroviral models, Rauscher (RMLV) and Friend (FMLV), and a murine model of acquired immunodeficiency (LP-BM5). Treatment of RMLV or FMLV infected mice significantly prolonged mean survival times and the number of long-term FMLV survivors. These therapeutic effects were demonstrated when IFN was administered on the day of virus infection or as late as 3 days following infection. Transient reversal of the immunosuppressive effects induced by LP-BM5 infection was observed when rHuIFN-alpha B/D treatment was initiated at the time of virus infection. Moreover, when rHuIFN-alpha B/D was used together with azidothymidine (AZT), the effect of the combination was better than either drug alone.

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